Remarks

Reconsideration of this Application is respectfully requested.

Claims 9-15 are pending in the application, with claim 9 being the independent claim.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Telephone Interview and New Information

Applicants sincerely thank the Examiner for the informative telephone interview that shed light on the issues. For the first time, Applicants learned of the calculation which is the basis for the Examiner's allegation that the data show only an additive effect and not a synergistic one. Hence, Applicants were precluded from earlier submitting the specific arguments presented herein to rebut the Examiner's underlying reasoning for using the calculation. Applicants respectfully note that the interview was conducted on December 15, 2006, and not December 22, 2006 as reported in the Advisory Action of January 4, 2007.

Rejections under 35 U.S.C. § 103

From a reading of the comments by the Examiner appended to the Advisory Action and the above telephone interview, the Examiner maintains that the data in the specification do not show a synergistic effect, but does not maintain that the present claims are obvious in view of the art of record.

Synergistic Effect

During the December 22, 2006 telephone interview, the Examiner described the calculation used to conclude that the data reflects an additive effect and not a synergistic

one. The calculation used by the Examiner gives a result of 78% efficacy - the same value as that *measured* by the Applicants. For background, Applicants note:

1.   An additive effect is the combined effect of two or more chemicals equal to the sum of the effects components would have if acting alone. Definition available from the Environmental Protection Agency ("EPA") website at http://iaspub.epa.gov/trs/trs_proc_qry.alphabet?p_term_nm=A. Whereas a synergistic effect is an effect whereby two toxic substance together have more of an impact than anticipated. Definition available from the EPA website at http://iaspub.epa.gov/trs/trs_proc_qry.alphabet?p_term_nm=S;

2.   The data at page 11 in the specification shows that when acting alone at an application rate of 100 g/ha, each individual component, trifloxystrobin, prothioconazole and fluoxastrobin of the composition has a percent efficacy of 56, 56 and 67, respectively; and

3.   In the composition, these components are present in the amount of 1 part trifloxystrobin, 2 parts prothioconazole and 1 part fluoxastrobin, *i.e.* 1:2:1, which is simply another way of stating the .25/.50/.25 ratio for the contribution of each component to the whole.

During the telephone interview, the Examiner stated that the calculation used to arrive at the conclusion of an additive effect is based on the 1:2:1 ratio and is as follows:

$$\frac{\text{Added Efficacies (1:2:1)}}{\text{Tot. No. of Components}} = \frac{56 + (56+56) + 67}{3} = 78$$

Applicants assert that on its face the *calculation cannot be correct for calculating an additive sum*, which is the simple sum of the effect the components would have if acting alone. Moreover, there are *two* systematic errors in the calculation that result in an

inflated value. First, the data used in the calculation are *percent* efficacy, and according to the experiment cannot be more than 100%. (*See* specification at page 10, lines 21-2, *stating that an efficacy of 100% means no infection is observed.*) Therefore, it is mathematically incorrect to add the second component twice, effectively reaching 112% efficacy for this single component, simply because its concentration is twice that of the other two components. Secondly, although the numerator accounts, albeit incorrectly, for the ratio of the components, the denominator does not do so at all. The result is a calculated value that will always be too high for the given data.

In a .25/.50/.25 (1:2:1) three-component composition applied at 100 g/ha, each individual component is actually present at *less than 100 g/ha*, but together add up to 100 g/ha. Therefore, to correctly determine the additive effect of a .25/.50/.25 (1:2:1) three-component composition, each component's contribution to the whole *must* first be proportionately weighted by simply factoring in the amount in which it is present in the whole. To do this, the amount of each component as a ratio of the whole is multiplied by the component's percent efficacy at 100 g/ha. Thus, individually, trifloxystrobin contributes [.25 x 56%], *i.e.*, 14%; prothioconazole contributes [.50 x 56%], *i.e.*, 28%; and fluoxystrobin contributes [.25 x 67%], *i.e.*, 17%, to the composition's efficacy when the composition is applied at 100 g/ha.[1] As described above, the additive effect is the simple sum of the individual components. The sum of 14, 28 and 17 is 59. *See* Table 1 below.

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[1] This calculation gives the highest possible value for individual efficacy. The calculation is based on the precondition that a linear dose-efficacy-response exists. Generally, however, the efficacies of lower doses are not linear, but instead reach a point whereby no significant efficacy is observed at all. Thus, the additive effect calculated herein from the individual efficacies is the highest value attainable, which is still 19% lower than the measured synergistic effect.

TABLE 1

Parts/Components (3)	1:2:1 Amount Present in Composition	[Ratio] x	[Individual Efficacy per 100g] =	Individual Contribution to Efficacy in 100g of 3 Component Composition
1 part **trifloxystrobin**:	25g	0.25	56%	14%
2 parts **prothioconazole**:	50g	0.50	56%	28%
1 part **fluoxystrobin**	25g	0.25	67%	17%
Total: 4 parts	100g	1.00	N/A	59% **Additive Effect**

The calculated additive effect is 59% efficacy, whereas the measured efficacy reported at page 11 in the specification is 78%. As described above, a synergistic effect is shown when substances have an effect which is greater than expected. Thus, the claimed composition possesses a synergistic effect.

For the reasons set forth in Applicants' previous replies, and in view of the arguments presented above, Applicants respectfully submit that the Examiner's reasoning is fatally flawed. Further, Applicants have shown that the measured efficacy is greater than the calculated additive effect and, therefore, is a synergistic effect. Reconsideration and withdrawal of the outstanding rejection is earnestly solicited.
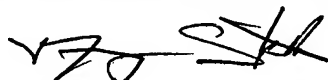
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Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the Final Office Action dated July 26, 2006 and to the Advisory Action dated January 4, 2007, and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Date: JANUARY 26, 2007

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